

Datasheet for ABIN3100240  
**UGCG Protein (AA 1-394) (Strep Tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	UGCG
Protein Characteristics:	AA 1-394
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This UGCG protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

## Product Details

Sequence:	<p>MALLDLALEG MAVFGFVLFL VLWLMHFMAI IYTRLHLNKK ATDKQPYSKL PGVSLLKPLK GVDPNLINNL ETFFELDYPK YEVLLCVQDH DDPAIDVCKK LLGKYPNVDA RLFIGGKKVG INPKINNLM GYEVAKYDLI WICDSGIRVI PDTLTDMVNQ MTEKVGLVHG LPYVADRQGF AATLEQVYFG TSHPRYYISA NVTGFKCVTG MSCLMRKDV L DQAGGLIAFA QYIAEDYFMA KAIADRGWRF AMSTQVAMQN SGSYSISQFQ SRMIRWTKLR INMLPATIIC EPISECFVAS LIIGWAAHHV FRWDIMVFFM CHCLAWFIFD YIQLRGVQGG TLCFSKLDYA VAWFIRESMT IYIFLSALWD PTISWRTGRY RLRCGGTAAE ILDV</p> <p><b>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</b></p>
Characteristics:	Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

## Product Details

Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## Target Details

Target:	UGCG
Alternative Name:	UGCG ( <a href="#">UGCG Products</a> )
Background:	<p>Ceramide glucosyltransferase (EC 2.4.1.80) (GLCT-1) (Glucosylceramide synthase) (GCS) (Glycosylceramide synthase) (UDP-glucose ceramide glucosyltransferase) (UDP-glucose:N-acylsphingosine D-glucosyltransferase),FUNCTION: Participates in the initial step of the glucosylceramide-based glycosphingolipid/GSL synthetic pathway at the cytosolic surface of the Golgi (PubMed:8643456, PubMed:1532799). Catalyzes the transfer of glucose from UDP-glucose to ceramide to produce glucosylceramide/GlcCer (such as beta-D-glucosyl-(1&lt;-&gt;1')-N-acylsphing-4-enine) (PubMed:1532799, PubMed:8643456). GlcCer is the core component of glycosphingolipids/GSLs, amphipathic molecules consisting of a ceramide lipid moiety embedded in the outer leaflet of the membrane, linked to one of hundreds of different externally oriented oligosaccharide structures (PubMed:8643456). Glycosphingolipids are essential components of membrane microdomains that mediate membrane trafficking and signal transduction, implicated in many fundamental cellular processes, including growth, differentiation, migration, morphogenesis, cell-to-cell and cell-to-matrix interactions (By similarity). They are required for instance in the proper development and functioning of the nervous system (By similarity). As an example of their role in signal transduction, they regulate the leptin receptor/LEPR in the leptin-mediated signaling pathway (By similarity). They also play an important role in the establishment of the skin barrier regulating keratinocyte differentiation and the proper assembly of the cornified envelope (By similarity). The biosynthesis of GSLs is also required for the proper intestinal endocytic uptake of nutritional lipids (By similarity). Catalyzes the synthesis of xylosylceramide/XylCer (such as beta-D-xylosyl-(1&lt;-&gt;1')-N-acylsphing-4-enine) using UDP-Xyl as xylose donor (PubMed:33361282).</p> <p>{ECO:0000250 UniProtKB:O88693, ECO:0000269 PubMed:1532799, ECO:0000269 PubMed:33361282, ECO:0000269 PubMed:8643456, ECO:0000303 PubMed:8643456}.</p>
Molecular Weight:	44.9 kDa
UniProt:	<a href="#">Q16739</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
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Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
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Restrictions:	For Research Use only
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## Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process